

IN THE CLAIMS:

The claims have not been amended. They are reproduced below for the Examiner's convenience.

1. (Previously Presented) A method of capturing the contents of files and directories in a file system, said file system comprising a set of storage blocks in a mass storage system including steps of

recording an active map in said file system of said storage blocks used by said active file system;

recording a consistency point in said file system including a consistent version of said file system at a previous time, said consistency point including a copy of said active map at said previous time; and

refraining from writing data to storage blocks in response to said active map and at least one said copy of said active map included in said consistency point.

2. (Previously Presented) A method as in claim 1, wherein said step of refraining includes determining a logical union of said storage blocks used by one or more of said copies of said active map included in said consistency point.

3. (Previously Presented) A method as in claim 1, wherein said step of refraining includes determining a subset of said storage blocks used by one or more of said copies of said active map included in said consistency point.

4. (Original) A method as in claim 1, wherein said file system is a WAFL file system.

5. (Previously Presented) A method as in claim 1, wherein said active map included in said consistency point is a snapmap.

6. (Previously Presented) A method as in claim 5, further including the step of removing a root inode of said snapmap using a snap delete.

7. (Previously Presented) A method as in claim 6, further including steps of determining not to write to a block after said step of removing, provided a previous or next snapmap uses said block.

8. (Previously Presented) A method as in claim 1, further including steps of copying modified data to a new block and saving old data in a current data block so as to implement a copy-on-write mechanism.

Claims 9 to 23 (Cancelled)

24. (Previously Presented) A method as in claim 1, further including the step of generating a summary map responsive to at least one said copy of said active map included in said consistency point.

25. (Previously Presented) A method as in claim 24, wherein said step of refraining from writing data to said storage blocks is accomplished by being responsive to said summary map.

DZ 26. (Previously Presented) A file system comprising:
a set of storage blocks in a mass storage system;
an active map in said file system of said storage blocks used by said active file system; and
a consistency point recorded in said file system, said consistency point including a consistent version of said file system at a previous time and a copy of said active map at said previous time;

wherein said file system refrains from writing data to storage blocks in response to said active map and at least one said copy of said active map included in said consistency point.

27. (Previously Presented) A file system as in claim 26, wherein in order to determine to refrain from writing said data, said file system determines a logical union of said storage blocks used by one or more of said copies of said active map included in said consistency point.

28. (Previously Presented) A file system as in claim 26, wherein in order to determine to refrain from writing said data, said file system determines a subset of said storage blocks used by one or more of said copies of said active map included in said consistency point.

29. (Previously Presented) A file system as in claim 26, wherein said file system is a WAFL file system.

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30. (Previously Presented) A file system as in claim 26, wherein said active map included in said consistency point is a snapmap.

31. (Previously Presented) A file system as in claim 30, wherein said file system removes a root inode of said snapmap using a snap delete.

32. (Previously Presented) A file system as in claim 31, wherein after said file system removes said root inode of said snapmap, said file system determines not to write to a block provided a previous or next snapmap uses said block.

33. (Previously Presented) A file system as in claim 25, wherein said file system further includes a copy-on-write mechanism that copies modified data to a new block and saves old data in a current data block.

34. (Previously Presented) A file system as in claim 25, wherein said file system generates a summary map responsive to at least one said copy of said active map included in said consistency point.

35. (Previously Presented) A file system as in claim 34, wherein said file system refrains from writing data to said storage blocks responsive to said summary map.

D2 36. (Previously Presented) A memory storing information including instructions, the instructions executable by a processor to capture the contents of files and directories in a file system, said file system comprising a set of storage blocks in a mass storage system, the instructions comprising the steps of: (a) recording an active map in said file system of said storage blocks used by said active file system, (b) recording a consistency point in said file system including a consistent version of said file system at a previous time, said consistency point including a copy of said active map at said previous time, and (c) refraining from writing data to storage blocks in response to said active map and at least one said copy of said active map included in said consistency point.

37. (Previously Presented) A memory as in claim 36, wherein said step of refraining includes determining a logical union of said storage blocks used by one or more of said copies of said active map included in said consistency point.

38. (Previously Presented) A memory as in claim 36, wherein said step of refraining includes determining a subset of said storage blocks used by one or more of said copies of said active map included in said consistency point.

39. (Previously Presented) A memory as in claim 36, wherein said file system is a WAFL file system.

DZ 40. (Previously Presented) A memory as in claim 36, wherein said active map included in said consistency point is a snapmap.

41. (Previously Presented) A memory as in claim 40, wherein the instructions further include the step of removing a root inode of said snapmap using a snap delete.

42. (Previously Presented) A memory as in claim 41, wherein the instructions further include steps of determining not to write to a block after said step of removing, provided a previous or next snapmap uses said block.

43. (Previously Presented) A memory as in claim 36, wherein the instructions further include steps of copying modified data to a new block and saving old data in a current data block so as to implement a copy-on-write mechanism.

D2 44. (Previously Presented) A memory as in claim 36, wherein the instructions further include the step of generating a summary map responsive to at least one said copy of said active map included in said consistency point.

45. (Previously Presented) A memory as in claim 44, wherein said step of refraining from writing data to said storage blocks is accomplished by being responsive to said summary map.
